

## CLAIMS

What is claimed is:

1. A medium access control identification code (MAC\_ID) assigned by a base station from a MAC\_ID space to each one of a plurality of mobile stations; wherein the MAC\_ID is assigned in an ascending order from the MAC\_ID space for a first group of mobile stations, and wherein the MAC\_ID is assigned in a descending order from the MAC\_ID space for a second group of mobile stations.
2. A medium access control identification code as in claim 1, wherein the first group of mobile stations use a forward link channel.
3. A medium access control identification code as in claim 1, wherein the second group of mobile stations use a reverse link channel.
4. A medium access control identification code as in claim 1, wherein the MAC\_ID is assigned in at least one of a forward link allocation channel and a reverse link allocation channel for user traffic identification.
5. A method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation without an assigned Forward Packet Data Channel, the method comprising:
  - initiating a transition by the mobile station from Control Hold Mode to an active state, by sending a transition mode request;
  - turning on a rate request channel by the mobile station, the mobile station requesting a reverse link transmission;
  - monitoring a rate grant channel with the mobile station;
  - acknowledging the reception of the mode transition request by sending an individual grant to the mobile station from the base station, thereby granting permission to transmit;

transitioning the mobile station to active state upon receipt of the grant, the mobile station starting to transmit on the reverse link data channel in autonomous mode; and,

commencing monitoring of a Forward Acknowledgement Channel with the mobile station.

6. A method as in claim 5, wherein initiating a transition by the mobile station from the active state comprises:
  - gating a reverse pilot and a reverse rate request channel;
  - detecting the transition by the base station;
  - stopping the transmission on the Forward Acknowledgement Channel;
  - stopping the monitoring of the reverse link; and
  - transitioning the mobile station to Control Hold Mode.
7. A method as in claim 6, wherein the base station controls the transition from the active state to Control Hold Mode when the Forward Packet Data Channel is assigned.
8. A method as in claim 5, wherein a reverse rate request channel is gated at a reduced rate of one half or less.
9. A method as in claim 5, wherein the rate of the grant channel is reduced to reduce the mobile station power consumption.
10. A method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation without an assigned Forward Packet Data Channel, the method comprising:
  - initiating a transition by the base station from Control Hold Mode to an active state by sending a transition mode request;
  - sending an individual grant via a forward grant channel to the mobile station to initiate the mode transition; and

transitioning the mobile station to the active state.

11. A method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile station, wherein a reverse link data channel is in operation with an assigned Forward Packet Data Channel, the method comprising:
  - initiating a transition by the mobile station from Control Hold Mode to an active state, by sending a transition mode request;
  - sending an acknowledgement on the reverse acknowledgement channel by the mobile station;
  - turning on a rate request channel by the mobile station, the mobile station requesting a reverse link transmission;
  - commencing the monitoring of a rate grant channel and a Forward Acknowledgement Channel with the mobile station;
  - acknowledging the reception of the mode transition request by sending an individual grant to the mobile station from the base station, thereby granting permission to transmit;
  - commencing continuous transmission by the mobile station on a reverse channel quality indication channel;
  - turning on a reverse acknowledgement channel;
  - commencing monitoring of the Forward Packet Data Control Channel; and,
  - transitioning the mobile station to active state upon receipt of a control message with specific message type, the mobile station starting to transmit autonomous rate on the reverse link data channel.
12. A method as in claim 11, wherein the reverse channel quality indication channel is gated at a reduced rate of one half or less.
13. A method for transition from a reverse link Control Hold Mode for a cellular communications system comprising a base station in communication with a mobile

station, wherein a reverse link data channel is in operation with an assigned Forward Packet Data Channel, the method comprising:

- initiating a transition by the base station from Control Hold Mode to an active state by sending a transition mode request;

- setting an extended message type identifier indicating that the mobile station is to exit the packet data channel Control Hold Mode;

- initiating the mode transition by sending a medium access control identification code by the granting base station via a Forward Packet Data Control Channel to the mobile station;

- turning on a Reverse Channel Quality Indication Channel and a Reverse Acknowledgement Channel by the mobile station;

- monitoring the Forward Packet Data Control Channel; and

- transitioning the mobile station to the active state.